

## At Union Seminar

# PR/IR's Ben Nixon Gives Highlights On Four Labor Relations Topics

Before a forum of union leaders and representatives of business and the press, Lago's PR/IR Manager B. E. Nixon lectured at the Recreation Center of the Hotel Workers' Union in San Nicolas Oct. 10.

He was one of the speakers at a seminar organized by the HWU from October 6 to 11.

During the four-hour session, which included a one-hour workshop, Mr. Nixon covered four labor relations topics: the need for unions; responsible union leadership; collective bargaining; and negotiating the work agreement.

After HWU Vice President Gaston Boasman had welcomed the group, Mr. Nixon was introduced by Union President John Hart.

Speaking on Responsible Union Leadership, Mr. Nixon stated that "Union representatives sometimes stray from their real responsibility."

"There is no greater need today than for responsible labor leaders," he pointed out.

Mr. Nixon mentioned three prerequisites for effective col-

lective bargaining: existence of a free union, recognized as a legitimate representative of the workers; equality of forces of the bargaining parties; decision of each of the parties to negotiate "in good faith".

Commenting on Labor Agreement Objectives, Mr. Nixon said that the nature of the Collective Working Agreement is to restrict management by

*(Continued on Page 3)*

## Creatividad di Sand, Cvejnovich Ta Duna Nan Patent Americano

Un problema den pensamentu di ingeniero di Lago George J. Cvejnovich na 1963, com ta midi conductividad di caustico usá a resulta den un patente pa Max Sand y pa George mes. Max tabata un tecnico di instrument dia cu el a bai di Lago na 1967, y awor a ta gerente di Industrial Instrument & Electronic Equipment.

George cu tabata traha den

*(Continuá na Pagina 7)*



Charles E. Lynch, a Utilities Systems Operator (left), receives the ICS Stationary Fireman's certificate from Utilities Shift Foreman W. Prime in Powerhouse No. 1 Control Room. An LVS student of the 1950 class, Mr. Lynch is among the eight Utilities employees who are following the 3-year ICS Power Plant Engineering course.

Charles E. Lynch un Operador pa Utilities Systems (robez) ta ricibi diploma di ICS pa Stationary Fireman for di Utilities Shift Foreman W. Prime den Sala di Control di Powerhouse No. 1. Un estudiante di Lago su School di Ofishi di 1950, Sr. Lynch ta entre e ocho empleadonan di Utilities cu ta siguiendo e curso di 3 anja di ICS pa Power Plant Engineering.



PR/IR Manager B. E. Nixon during 4-hour lecture at union seminar at the Hotel Workers' Union Recreation Center in San Nicolas.



Gerente di PR/IR B. E. Nixon durante lectura di 4 ora na seminar di union den Centro di Recreacion di Hotel Workers' Union na San Nicolas.



A. Werleman - Editor; Miss L.I. de Lange - Assoc. Editor;  
J. M. De Cuba - Photographer

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## Don't Let Oil Drop Become a Fugitive

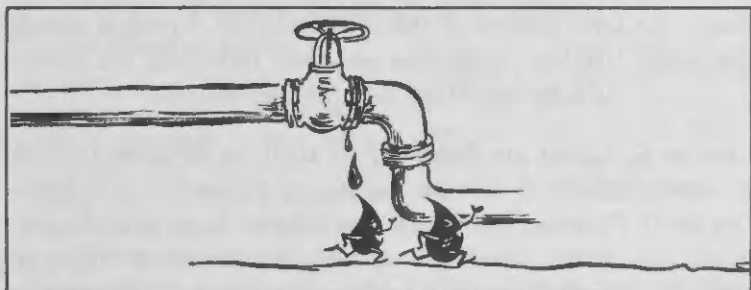
From the moment a tanker starts unloading its crude cargo at the Lago piers until the finished product is pumped into tankers for export, it is the responsibility of every employee concerned to see to it that the oil, in whatever form or grade, never touches ground. If it does, it will become a "fugitive" and will escape to the subsoil where it came from.

How much oil is lost can only be guessed from the amount of oil that is recovered from Lago's 14 miniature oil wells: 60 barrels a day or some 22,000 barrels a year. What is recovered in this way is perhaps a small percentage of the actual oil that seeps through the porous coral from leaking valves, pumps, pipe connections or overflowing tanks.

Other places where the "fleeing" oil is finally trapped are the separators. Here approximately half a million barrels of oil is recovered a year, but still hundreds of barrels of oil get lost.

What employees can do to help stop the oil from "being a fugitive" is: report oil leaks at once to their supervisor, avoid wrong line connections and be alert against tank overflowing.

For 1968, the total oil loss from all sources at Lago is estimated at approximately 3,800 barrels a day.



## No Laga Druppel di Azeta Bira un Fugitivo

For di momento cu un tankero cumenza descarga su carga-mento di zeta crudo na wafnan di Lago, te ora e producto final ta worde gepomp den tankeronan pa exportacion, ta responsabilidad di cada empleado concerni di percura pa e azeta ey, den cualkier forma cu ta, nunca cai den suela. Si azeta cai abao e ta bira un "fugitivo" y ta scapa den tera for di cual el a sali.

Cuantu azeta ta bai perdi nos por rei solamente for di cantidad cu diariamente ta worde sacá for di Lago su pozzan miniatura: 60 baril pa dia, esta 22,000 baril pa anja. Locual ta bini bek di e manera ey kizas ta un porcentahe chiquito di e cantidad real cu ta bai den tera poroso for di lekmentu di valvula, pompnan, coneccionnan den tuberia of tanki cu basha over.

Otro camindanan cu compania ta recoge su azeta bek finalmente ta separadonan. Eyden tur anja mitar milyon di bari di azeta ta bini bek, pero toch centenares di baril di azeta ta bai perdi.

Loke empleadonan por haci pa evita azeta di bira un "fugitivo" ta: reporta mes ora na nan supervisor cualkier lek di azeta cu nan mira, evita coneccionnan robez den tuberia y percura pa ningun tanki basha over.

Pa 1968 compania ta calcula cu total di azeta perdi for di tur fuentenan na Lago ta mas of menos 3800 baril pa dia.

## 30th Service Anniversary - October

Reginaldo Lampe di Mechanical-Equipment Section a pasa henter su carera cu Lago den Mechanical Department. El a cumenza como Mechanical Apprentice "B" y a progresa te bira Machinist Helper "A" na 1945.

Un anja despues el a avanza pa Machinist "C". Na 1952 el a ser promovi pa Machinist "A". E titulo aki a ser cambia pa Equipment Tradesman "A".

Sr. Lampe, kende ta haci obra di man y ta pinta como hobby, ta biba na Santa Cruz cu su senjora y nueve yiu.

El a recorda su di 30 aniversario di servicio cu compania October 6.

Reginaldo Lampe of Mechanical-Equipment Section has spent his entire Lago career in the Mechanical Department. He started as a Mechanical Apprentice "B" and progressed to Machinist Helper "A" in 1945.

A year later he advanced to Machinist "C". In 1952 he was promoted to Machinist "A". This title was changed later to Equipment Tradesman "A".

A hobby handicraftsman and painter, Mr. Lampe lives in Santa Cruz with his wife and nine children.

He commemorated his 30th service anniversary with the company Oct. 6.

## 25-Year Service Watch Recipients

Teofilo Gil	- Process-Refining, Acid & Edeleanu
Leonardo Henriquez	- Comptroller's-Office Services
Marco E. Donata	- Process-Refining, Catalytic & Light Ends
Russel Th. van Vuurden	- Process-Refining, Catalytic & Light Ends



Rein van Ommeren (center) recently visited his friends of Mech.-Engineering. Here he is with I. R. Martinez (left) and Eddy Tjin Kon Fat. Now manager of a sugar factory at the Waterloo Plantation in Surinam, he had worked from 1947 to 1958 as an engineer in Mech.-Engineering. The sugar plantation covers an area of about 45 square kilometers.

Rein van Ommeren (centro) poco dia pasá a bishita su amigonan di Mech.-Engineering. Aki a ta cu I. R. Martinez (robez) y Eddy Tjin Kon Fat. Awor gerente di un fabrica di sucu na Plantacion Waterloo na Surinam, el a traha di 1947 te 1958 como un ingeniero den Mech.-Engineering. E plantacion di sucu tin un grandura di 45 kilometro cuadrá.



John Hart, President of the Hotel Workers' Union (at the mike) welcomed guests and union leaders at seminar October 10. HWU Vice President Gaston Boasman (in background) introduced speaker B. E. Nixon and conducted the session.

John Hart, Presidente di Hotel Werknemers Unie (na microfoon) ta yama huespedes y lidernan di union bonbini na ■ seminar Oct. 10. Vice President Gaston Boasman (banda pa tras) a introduci orador B. E. Nixon y a conduci ■ sesion.

#### Na Seminar di Union

## Gerente di PR-IR B. E. Nixon Ta Pone Enfasis Ariba Cuatro Punto tocante Relaciones Laboral

Dilanti un concurrencia di dirigentenan sindical y representantenan di comercio y prensa, Lago su gerente di PR/IR B. E. Nixon a tene discurso na Centro di Recreacion di Sindicato di Trahadornan di Hotel na San Nicolas, October 10. E tabata un di ■ oradornan na ■ curso organisá door di HWU di 6 te 11 October.

Durante e sesion cu a dura cuater ora, incluyendo cu trabao practico di un ora door di participantes, Sr. Nixon a cubri cuater topiconan den relacionnan laboral: necesidad di tin union, direccion responsabel den unionnan; negociacion colectivo; y negociando combenio di trabao.

Despues di un bonbini door di Vice President di HWU Gaston Boasman, Sr. Nixon a word introduci door di John Hart, presidente di ■ union.

Papiando riba direccion responsabel di sindicatonan, Sr. Nixon a bisa cu "Tin bez representantenan di sindicatonan ta sali for di caminda di nan responsabilidad real". "Actualmente tin un necesidad grandi di lidernan laboral responsabel", el ■ senjalá.

Sr. Nixon a menciona tres requisito pa negociacion colectivo efectivo: existencia di un union liber, reconocí como legitimo representante di traha-

dornan; igualdad di forzanan di e partenar cu ta negocia; decision di cada un di e partenar di negocia "na buena fe".

Comentando riba Obhetivonan di Combenio di Trabao, Sr.

Nixon ■ bisa cu naturaleza di un Combenio Colectivo di Trabao ta pa impone restriccion riba gerencia tantu pa medio di su provisionnan expresá y

(Continuá na Pagina 4)

### Nixon Lectures on Labor Relations

(Continued from page 1)

both its express and implied provisions — and to restrict the union only in its right to strike.

Some of the objectives of any company in negotiating ■ labor agreement, in Mr. Nixon's opinion, should be:

1. Try to stabilize labor relations within the company for ■ specified period of time.
2. Clarify the rights and responsibilities of management, union and employees.
3. Provide an orderly and peaceful means of conducting and resolving any misunderstanding or grievances.
4. Establish the basic and complete agreement between the parties covering rates of pay, wages, hours of work and other conditions of employment.

5. Insure continued efficiency and high productivity in the company to promote and improve industrial and economic relationship of the company and employees.

One basic need for any company, Mr. Nixon stressed, is to preserve in the contract the right to run the business and to make changes.

A modern business cannot operate successfully unless it can change to take advantage of new technology, new procedures and new work methods.

However, Mr. Nixon remarked, the unions have the right to protest these changes. They need to know if the changes are necessary or not, and why they must be made. They have the responsibility of protecting the interest of their members. They must explain the reasons to their members, so they also understand why the company must make a change.

In discussing the negotiation of a working agreement,

## Technical-Engineering Gets New Section For Hydrodesulfurization

Effective October 1, 1969, a new section was formed in Technical-Process Engineering Division. This new section, called the Hydrodesulfurization Section, will initially have the technical responsibility for the final process design stages of the HDS Project and for the startup operations. Long range, the section will be responsible for the process engineering contact effort on the HDS units.

Mr. E. V. Holzer has been named Engineering Supervisor of this section. The following initial assignments have been made to the section: Messrs. C. K. Rodkey, A. H. Hoo, J. H. V. Harlow, G. W. Gilmore and D. Marquez.

Mr. Nixon emphasized that it is important to determine: 1. What the workers' problems are; 2. What the needs of the workers are; 3. What the workers want; 4. What the union needs.

Mr. Nixon was very firm in explaining that bargaining is not a question of: We want this or we want that. "That's demanding", he said.

"The union must be prepared to give justification for each request against a well-prepared management. What you get out of the negotiations may well depend on how well you do your homework of preparing your justifications, your sound reasons to back up your demands", Mr. Nixon told the union leaders.

Following the workshop, Mr. Nixon handed out some sample clauses of various provisions that may be included in a work agreement.

The Hotel Workers' Union was formed in September 1964 and now has 1050 members employed in five hotels. The board of the HWU consists of John Hart, president; Gaston Boasman, vice president; Pedro H. Croes, general secretary; Hilton Hill, treasurer; and Antonio Janga, S. Julien and Alfred Kingsale, board members.





During the "Jamboree on the Air" Oct. 18/19, the Aruba boy scouts set up two stations with the aid of the Aruba radio hams, one at Washington (right) and one at Lago Heights. The scouts established many contacts with scouts in several countries, including a conversation with the wife of the Colombian President.



Durante un Jamboree Radial October 18/19, e Padvindres di Aruba cu ayudo di radio amateurnan di Aruba a instala dos stacion, uno na Washington (na drechi) y e otro na Lago Heights. E padvindres a establece hopi contacto cu otro padvindres den varios pais, incluyendo un conversacion cu esposa di President di Colombia.

### Nixon Tocante Relaciones Laboral

(Continuá di pagina 3)

implicá — y pa pone restriccion riba sindicato solamente den su facultad di huelga.

Algun di e obhetivonan di cualkier compania ora e ta negocia un combenio colectivo di trabao, den opinion di Sr. Nixon, lo mester ta:—

1. Trata di stabilisa relacionnan laboral den compania pa un tempo specifico;
2. Clarifica derechonnan y responsabilidad di gerencia, sindicato y empleado.
3. Percura pa un medio ordená y pacifico pa conduci y soluciona cualkier malcomprendemento of keho.
4. Establece acuerdo basico y completo entre e partenar cual ta cubri tarifa di sueldonan, pago, oranan di trabao y otro condicionnan di trabao.
5. Sigura eficacia continuo y productividad grandi den compania pa asina promove y mehora relacionnan industrial y economico entre compania y su empleado.

Un necesidad basico pa cualkier compania, Sr. Nixon a bisa cu enfasis, ta pa preserva den e contrato su derecho di mancha e empresa y di haci

cambianan. Un empresa moderno no por funciona cu exito a menos cu e por cambia pa saca provecho for di tecnica nobo, procedimentonan nobo y metodonan nobo di trabao.

Sinembargo, Sr. Nixon a nota, sindicatonan tin derecho di protesta contra e cambianan ey. Nan mester sabi si e cambianan ta necesario of no, y pakico mester haci nan. Nan tin responsabilidad di proteha interesnan di nan miembronan. Nan mester splica motibonan na nan miembronan, pa di tal manera nan tambe lo comprende pakico compania mester haci e cambianan.

Mientras el a splica tocante negociacion di un combenio di trabao, Sr. Nixon a pone enfasis riba e hecho cu ta importante pa fiha: 1. Kiko ta e problemanan di trahadornan; 2. Kiko ta necesidatnan di trahadornan; 3. Kiko e trahadornan ta desea; 4. Kiko e sindicato mester.

Sr. Nixon tabata masha firme den su splicacion cu negociacion no ta un cuenta di: Nos kier esaki y nos kier esey. "Esey ta exigencia", el a bisa.

"Union mester ta prepará pa duna hustificacion pa cada peticion contra gerencia cu ta



This site north of Powerhouse No. 1 is being prepared for building part of the HDS complex.

E sitio aki noord di Powerhouse No. 1 ta ser prepará pa traha parti di e complex di Hydrodesulfurizacion.

bon prepará. Loke bo saca for di negociacionnan, por wel depende com bo a traha bo huiswerk pa prepara bo hustificacion, bo motibonan sano pa respalda bo demandanan", Sr. Nixon a bisa e lidernan di union.

Despues di un sesion practi-

co cu cambio di opinionnan, Sr. Nixon a parti muestra di algun clausulanan di varios provision cu por worde incluí den un combenio di trabao.

Sindicato di trahadornan di hotel a worde lantá na September 1964 y awor tin 1050 miem-

(Continuá na Pagina 7)

## Tankfarm Road System Improvement Continues by Building Three Roads

In addition to the large hydrodesulfurization project in progress on the southern part of the refinery, there are other significant projects being undertaken at the other end well.

One of them is road building and reconstruction, involving three roads.

Continuing the improvement of the refinery road system, the road along the refinery fence on the north side has been rebuilt. The 3,000 feet long, 20 feet wide, first-class road connecting Gate 4 with Gate 8 was completed recently (See Chart I).

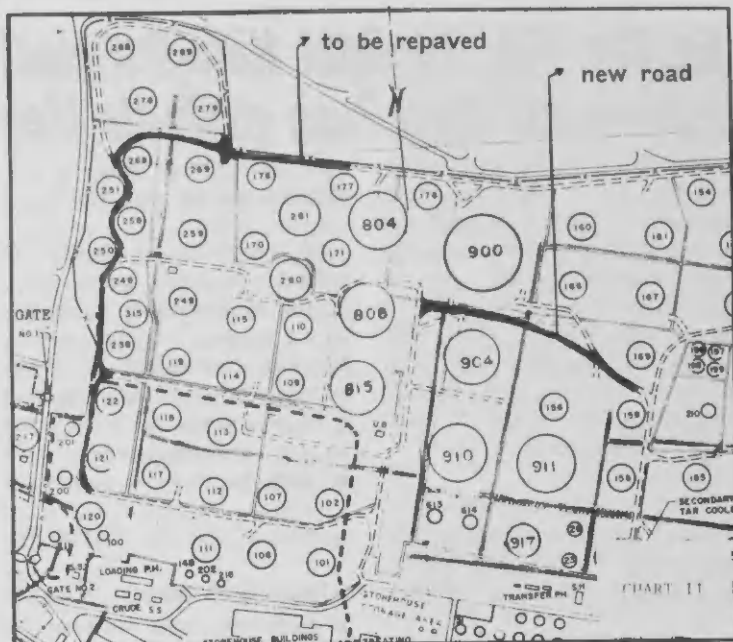
The road, which is provided with a 1-inch layer of asphalt

concrete, has been straightened by removing the curves, while the grade differences — sometimes up to 10 feet — have been smoothed out as much as possible. At appropriate locations, railings and side roads were built.

Another part of the road system under construction is the 900 feet stretch from Tank 169 to Tank 904 (See Chart II).

This road will tie in with the new roads built last year leading to the 630,000-barrel Tank 900 and other 400,000-barrel tanks Nos. 804, 808, 815 and 904.

Already contracted and to be reconstructed in the future (Continued on Column 3)



## Sistema di Camina den Tank Farm Ta Continua cu Tres Camina Nobo

Ademas di e proyecto di hydrodesulfurizacion grandi en progreso na banda zuid di refinaria, tin otro proyectonan significante ta ser emprendi na e otro banda tambe. Uno di nan ta construccion y reconstruccion di camina, envolviendo tres seccion.

Continuando e mehoracion di

(From Column 2)

is the section of the road from Tank 177 to Tank 120 with a length of 2000 feet (See Chart II).

The building of these roads, costing approximately Fls. 100,000, has been awarded to the Aruba Road Construction Co. Project Engineer for the three jobs is S. Q. Oduber of Mechanical-Engineering.

sistema di camina di refinaria, e camina canto di waya na banda noord a ser reconstrui. E camina aki di 3000 pia largu, 20 pia hanchu, di primera clase cu ta conecta Porta 4 cu Porta 8 a ser completá recientemente (mira Chart I).

E camina aki, cu tin un capa di asphaltconcreet di 2 duim a ser haci recto door di elimina curvas, mientras e haltura den camina — tin bez te 10 pia haltu — a ser rebahá mas tanto posibel. Na lugarnan apropiado, railing y camina na banda a ser trahá.

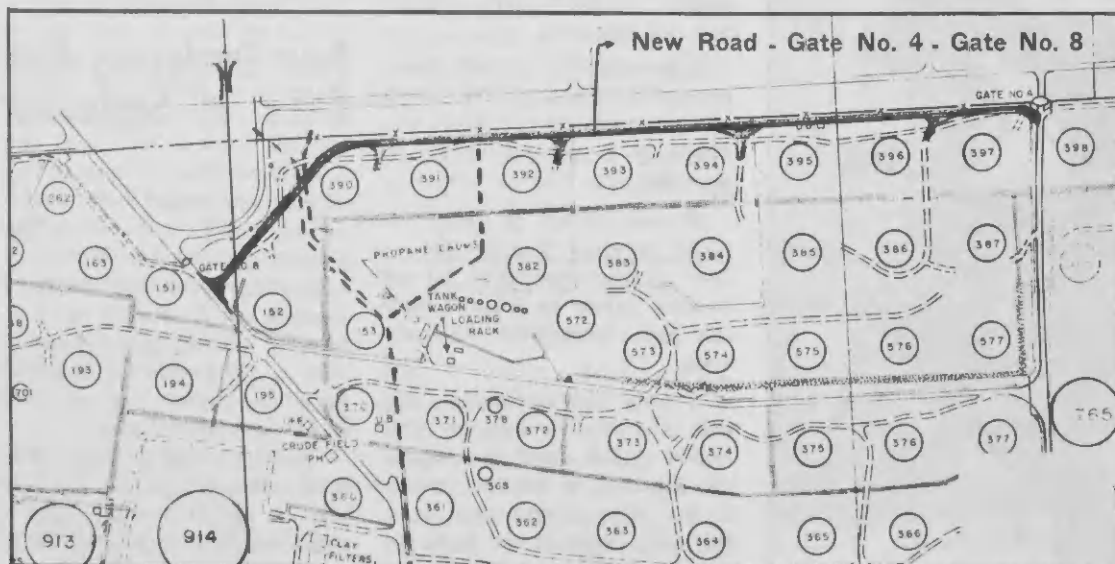
Un otro parti di camina bau construccion ta e pida di 900 pia for di Tanki 169 pa Tanki 904 (Mira Chart II). E camina aki lo conecta cu e caminan nobo trahá anja pasá cu ta bai pa e tanki grandi di 630,000 baril No. 900 y otro Tankinan Nos. 804, 808, 815 y 904, tur di 400,000 baril.

Ya contractá y pa ser reconstrui den futuro ta e seccion di camina for di Tanki 177 pa Tanki 120 cu un largura di 2000 pia (mira Chart II).

E trahamento di e caminan aki, cu ta costa mas o menos Fls. 100,000, a ser otorgá na Aruba Wegenbouw Maatschappij. Ingeniero di Proyecto pa tres trabaoan aki ta S. Q. Oduber di Mecanical-Engineering.



Newly constructed road connects Gate 4 with Gate 8. Camina recientemente construi ta conecta Porta 4 y Porta 8.



## Ta Bon Pa Bo Sabi Kiko Pa Haci Promer cu Algo Pasa di Berde Mes

Hende cu ta stuur vehiculo por hanja nan mes den hopi situacion di apuro. Y pesey ta masha importante pa sabi *de-lantá* cua ta e mihor cos pa haci ora cu algu bai malu di berde mes. Pero tin dos regla basico cu por juda den hopi situacion dificil: 1. Keda calma, no perde cabez, 2. Sabi kiko bo mester haci.

Aqui tin algun di emergencianan cu por socede, y nos sugerencia cu por juda Bo tumas accion defensivo corecto.

### Bo Luz di Adilanti a Paga

Ta un cos so bo por haci ora bo luznan di adilanti tur paga, y di repente bo ta hanja bo den scuridat — tene curso recht den direccion di caminda. Cera breek mas duru cu bo por pero sin causa bo auto di slip. Hala bo auto asina leu na cantu di caminda cu por y fuera di trafico cu bo por.

Intencion ta di reduci bo velocidad liher promer cu un error di stuurmento haci bo kita for di caminda.

Unabez bo e para, pone luz di aviso riba caminda of usa un flashlight pa avisa trafico cu ta bini bo tras cu tin peliger eynan. Si bo por cende tur cuater luz di direccion di bo auto, cende nan.

Si nada no ta traha — radio, luz di paden etc. — anto bo problema probablemente ta cabel di bo bateria of fuse-

nan. Mira cu e cabel ta bon conecta na tur dos banda.

Si solamente e luznan di adilanti ta pagá, anto interruptor di circuito e habri (riba autonon modelo nobo). Pasobra interruptor ta traha cu cajente, e ta habri y cera y di e manera ey e ta duna bo luz intermitente pa juda bo pone bo auto na seguridad.

### AUTO A PEGA CANDELA

Majoria di candela den auto ta causá pa corto circuito. Por ta imposibel pa bo desconecta bo bateria sin herment. Pues no perde tempu. Saca e man di bo jack for di baul y cuné ranca e wajanan cu ta kimando. Ta costa bo hopi menos di pone waja nobo cu cumpra un auto nobo.

Si bo no tin cos di paga candela den auto, trata di paga e candela cu un articulo di bisti cu ta basta grandi. No cohe waja cu ta kimando cu bo man bashi. Usa un panja diki of algun articulo di bisti, pasobra un kimá di coriente por ta serio. (Aunke autonon ta usa solamente 12 volt, amperahe of forza di coriente por ta hopi haltu ora algun cos faya). Bo por tambe trata di para un auto cu ta pasando y cu por tin un cos di paga candela.

Si e candela ya ta for di control, hala leu for di bo auto promer cu tanki di gasolin bula.



Your lights go out. (Bo luznan e paga)

## It's Good To Know What to Do Before Things Really Happen

A driver may find himself/herself in many emergency situations. It is very important to know *beforehand* what is the best thing to do if something goes wrong. However, here are two basic rules that can help in any difficult situation: 1. Stay calm. Don't panic. 2. Know what to do.

Here are some emergencies that may occur and hints that may help you take the right defensive action.

### Your Headlights Go Out

There's only one thing to do if your headlights go out and you're suddenly plunged into darkness — hold e steering course in the direction of the road. Brake as hard as you can without throwing yourself into e skid. Ease onto the shoulder as far from a traffic lane e you can get.

The idea is to pull your speed down quickly before e slight steering error takes you off the road.

Once stopped, set out flares or use e flashlight to warn oncoming traffic. Use the four-way flasher if they are operable.

If everything is dead — radio, interior lights, etc. — the problem probably is the battery cables or fuses. Check the cable terminals at both ends.

If only the headlamps are out, the circuit breaker (on newer model cars) has opened. Since it is heat actuated, it should open and close, giving you intermittent light to help you to safety.

### YOUR CAR CATCHES FIRE

Most car fires are caused by e short circuit. It may be impossible to disconnect the battery terminals without tools. So don't waste time.

Get the jack handle from the trunk and rip loose any burning wires.

They are a lot less expensive to replace than a burned-out car.

If you don't carry a fire extinguisher, try to smother burning wires with a large article of clothing. Don't grab burning wires with your bare hands. Use e heavy cloth or article of clothing because e electrical burn can be serious. (While autos use only 12 volts, amperage or current can be relatively high in a malfunction). You can also try to stop a passing car, that may have an extinguisher.

If the fire is beyond your control, get away from the car before the gas tank explodes.

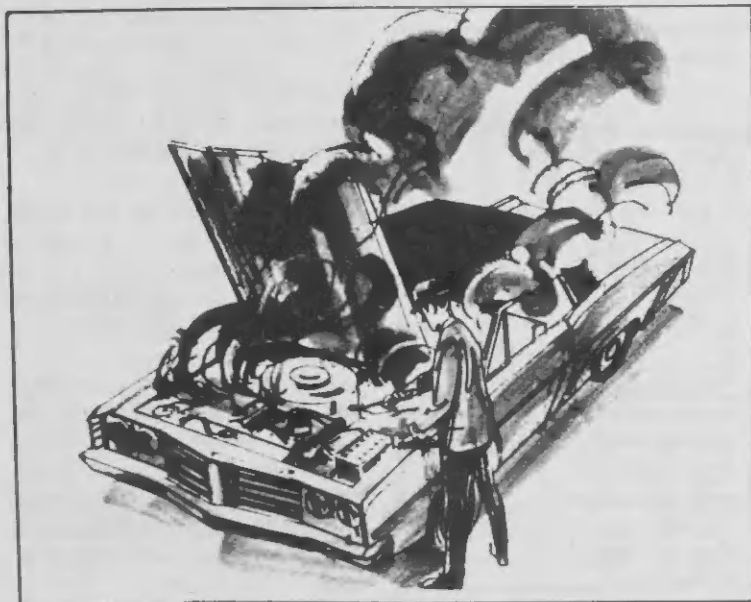
## Four Employees Earn CYI's in September

Last month the suggestions of four employees were adopted by the CYI Committee. The awards totaled Fls. 350.

Winning an initial award of Fls. 50, E. O. Rafael of Process-Oil Movements, suggested that a jumpover be installed between P-405 suction and P-400 discharge lines.

Teodoro Croes of Lago Hospital earned Fls. 40 for his idea to install a small square glass window at the entrance

(Continued on page 8)







Max Sand (left) and George Cvejnovich examine the U.S. patent document they received recently on their invention: Capacitive-Coupled Conductivity Analyzer.

Max Sand (robez) y George Cvejnovich ta examina e patent Americano cu nan a recibi recientemente pa nan invencion: Un Analizador di Conductividad.

### Invento di Sand y Cvejnovich

(Continúa di pagina 1)

Technical-Lab. na 1963, actualmente ta senior engineer den Technical-Process Engineering.

E patente, cu a worde duná recientemente, ta cubri un aparato pa midi conductividad electrico di liquidonan corosivo, sin permiti wajanán di e instrumento mididor toca directamente cu e liquido.

Ventaha di tal aparato, compará cu equipo regular ta cu e ta evita cu acido ta come e wajanán y e ta produci midimentonan mas exacto. Ora cu e puntanan di waja toca cu e liquido, sushi den e liquido ta keda pegá na nan y ta stroba midimento exacto.

E aparato, cu ta worde usá pa midi conductividad di sea gasnan of liquidonan of mezcla di nan dos, ta consisti di dos seccion. Un ta un tubo di glas capilar den forma di letter U, y ta un cel di conductividad cu dos baki chikito cubrí cu plata na cada braza di e tubo den forma U. E otro seccion tin aden unidad pa duna corriente, unidad di control y selector y equipo pa marca e midimento ta conecta pa medio di dos waja electrico pegá na e capa di plata di e dos bakinan.

Midimento ta tuma lugar door di trece e liquido of gas den e tubo U pa medio di e tubo capilar conectá na bom di e tubo U.

Despues nan ta pasa corriente alterná pa e capa di plata

riba e bakinan. E corriente ta keda transmiti door di e glas cu ta actua como un elemento di-electrico of isolacion di condensador pa e liquido cu ta keda paden.

Resistencia di e liquido ta determina e cantidad di corriente cu ta pasa door di e tubo capilar di un baki pa e otro, cual por worde mirá riba equipo registrador cu ta marca e midimento.

E invencion aki por tin uso grandi den industria petrolera of otro industrianan, caminda ta necesario of deseabel di separa wajanán for di e material cu mester worde midí.

Cu permit bao di patente Mericano No. 3,447,070, e invencion di Max Sand y George Cvejnovich a worde registrá pa mediacion di Division di Patent y Permit di Esso Research and Engineering Company. Peticion pa registra e patente aki a worde mandá aden for di Augustus 1963.

### Seminar di Union

(Continúa di pagina 4)

bro cu ta traha den cinco hotel. Directiva di HWU ta consisti di John Hart, presidente; Gaston Boasman, vice presidente; Pedro H. Croes, secretario general; Hilton Hill, tesoro; y Antonio Janga, S. Julien y Alfred Kingsale, miembros.

## Creativity of Sand, Cvejnovich Earns Listing among U.S. Inventors

A problem in the mind of Lago engineer George J. Cvejnovich back in 1963 on how to measure the conductivity of spent caustic resulted in a patent for Max Sand and George himself. An instrument technician when he left Lago in 1967, Max is now manager of Industrial Instrument & Electronic Equipment. George, who was in Technical-Lab in 1963, is at present a senior engineer in Technical-Process Engineering.

The patent, awarded recently, covers an apparatus to measure the electrical conductivity of corrosive fluids without allowing the electrodes of the testing instrument to come into direct contact with the fluid.

The advantage of this apparatus over conventional equipment is that it avoids electrode corrosion and delivers more exact measurements.

When the electrodes come in contact with the liquid, impurities cling to them and hamper accurate readings.

The device, used in measuring the conductivity of either gases or liquids or mixtures thereof, is comprised of two compartments.

One is a capillary glass U-tube conductivity cell with two small silver-coated reservoirs on each arm of the U-tube. The other compartment contains a power supply unit, a control and selector unit and

the recorder equipment. The recorder is connected by two electrical leads to the silver coating of the reservoirs.

Measuring is done by introducing the liquid or gas into the U-tube by means of a capillary tube connected to the bottom of the U-tube.

It then flows upward to fill the branches of the U-tube. Alternating current is subsequently applied to the silver coating on the reservoirs.

This current is transmitted through the glass which acts as the dielectric or insulation of a condenser with the fluid inside.

The resistance of the fluid determines the amount of current that will flow through the capillary tube from one reservoir to the other, which can be read on the recorder.

The invention may have broad application in the petroleum and other industries where it is necessary or desirable to isolate the electrodes from the material being measured.

Licensed under U.S. Patent No. 3,447,070, the invention of Max Sand and George Cvejnovich has been obtained through the intermediary of the Patents and Licenses Division of Esso Research and Engineering Company. The application for the patent has been filed as far back as in August, 1963.



Conductivity analyzer with recorder.  
Analizador di conductividad cu registrador.



Ice floes up to 15 feet thick as well as occasional ice ridges of up to 40 feet were taken in stride.

Masa di ijs flotante te 15 pia diki y tambe algun ceru di ijs te 40 pia e tankero a pasa door nabegando.

## Tankero Manhattan Ta Completa Viahe Noord-West den Arctico

Humble Oil & Refining Company a cumpli cu sonjo historico di exploradornan manera John Cabot y Henry Hudson. September 20, 1969 Humble su ijsbreker di 115,000 ton, e tankero Manhattan, a jega na Point Barrow, Alaska, completando asina e promer biahe comercial door di e legendario pasada Noroeste. Menos cu un luna anterior, Diadomingo, 24 Augustus, el a sali for di Port Chester, estado Pennsylvania, riba su biahe epico di 4,500 milja.

Manhattan lo bolbe door di e mes pasada cu rumbo oost despues di a pasa un luna haciendo testnan di ijs den Estrecho Melville. Nan ta spera e tankero bek for di lama artico den haf di New York banda di November 10.

Plannan anterior tabata pa Manhattan bira bai Noord y

drenta den lama di Beaufort y lama Artico, pa haci pruebannan despues di su jegada na Point Barrow. Estrecho di Melville a keda escogi pasobra condicionnan di ijs eyden ta similar na esnan den lama di Beaufort. Pruebanan den Estrecho Melville lo haci posibel pa compania accumula informacionnan cu mester y lo ta mas facil pa e tankero scapa eynan.

Cu rumbo den direccion west, Manhattan mester a bringa contra ijs den Estrecho di McClure y situacion tabata dificil.

El gigantesco ijsbreker a keda pegá tres bez den e estrecho ey y el a keda libertá cada bez door di ijsbreker Canadiense "Sir John A. MacDonald".

No obstante esey, Humble a jega na conclusion cu nabega-

## Tanker Manhattan Completes Voyage Through Arctic Northwest Passage

Humble Oil & Refining Company has fulfilled the historic dream of explorers such as John Cabot and Henry Hudson. On September 20, 1969, Humble's 115,000-ton ice-breaking tanker S.S. Manhattan arrived at Point Barrow, Alaska, thus completing the first commercial voyage through the legendary Northwest Passage. Less than a month before, on Sunday, August 24, she had steamed out of Chester, Pa., on her 4,500-mile epic voyage.

The Manhattan will return through the passage eastbound after spending about a month conducting ice tests in Melville Sound. She is expected to arrive back from the frozen north and enter New York Harbor about November 10.

Earlier plans called for the Manhattan to turn northward into the Beaufort Sea and Arctic Ocean for tests after her arrival at Point Barrow.

Melville Sound was selected because ice conditions there are similar to those of the

Beaufort Sea. Testing in Melville Sound will also permit the company to gather the data it needs and retain a greater escape capability.

Westbound, the Manhattan battled ice in McClure Strait and found it difficult. The giant icebreaking tanker became stuck three times in the Strait and was freed each time by the Canadian icebreaker, Sir John A. MacDonald.

Despite this, Humble has reached the conclusion that commercial shipping is feasible through the arctic Northwest Passage. To Humble's parent, Standard Oil Company (New Jersey), and to all the oil industry the S.S. Manhattan's voyage is an historic event 500 years in the making.

### September CYI's

(Continued from page 6)

of the Lago hospital operation room.

Winners of the two other ideas, each valued at Fls. 100 or more, will be announced later at a special CYI dinner.

### NEW ARRIVALS

August 22, 1969

HENRIQUEZ, Milton H. - PR/IR Dept.; A son, Bernard Dwight.

LEONARDO, Luis L. - Electrical; A son Jeffrey Gregory.

TROMP, Teodoro - Refining Division; A daughter, Jarelis Noely Mireille.

August 24, 1969

PLAMBECK, Richard L. - Esso Research & Eng; A son, Christopher Alan.



Crew members of "Manhattan" take pictures of an Eskimo village at Narssurssuk in Thule Fjord.

Tripulante di Manhattan ta saka portret di un pueblo di Eskimo na Narssurssuk den Thule Fjord.